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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,825	06/26/2003	Raymond Neff	12148	5450
28484 7590 07/26/2007 BASF AKTIENGESELLSCHAFT CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN LUDWIGSHAFEN, 69056 GERMANY			EXAMINER COONEY, JOHN M	
			ART UNIT 1711	PAPER NUMBER
			MAIL DATE 07/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/606,825

Applicant(s)

NEFF ET AL.

Examiner

John m. Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,5,7-18,20-25,28,29,31-41,43-48,51,52 and 54-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-18,20-25,28,29,31-41,43-48,51,52 and 54-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

Applicant's arguments filed 5-8-07 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 7-18, 20-25, 28, 29, 31-41, 43-48, 51, 52, and 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al.(6,391,935).

Hager et al. discloses preparations of polyurethane foams having densities as claimed prepared from isocyanates, polyols or configurations of polyols polyoxyalkylene based polyols, chain extenders, crosslinkers, alkoxyated monols as claimed, and many other commercial additives which are mixed and reacted at isocyanate indices as claimed (see the entire document).

Hager et al. differs from applicants' claims in that chain extenders are not particularly employed in amounts as claimed. However, Hager et al. recites variation of their chain extender within the range of minor amounts (column 4 line 60 – column 5 line 9) for the purpose of controlling polymer build-up. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amounts of chain extender within the teachings of Hager et al. for the purpose of controlling polymer

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build-up of the products obtained in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 .

Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05

I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Hager et al. differs from applicants' claims in that ethylene oxide rich polyols as claimed are not particularly required. However, Hager et al. recites employment of EO/PO copolymeric variations of their preferred polyoxyalkylene polyols in the practice of their invention for purposes of achieving desired arrangements (see column 4 line 34-55). Accordingly, it would have been obvious for one having ordinary skill in the art to have controlled the ethylene oxide contents in the making of the polyoxyalkylene polyols of Hager et al. for the purpose of controlling water affinity of the chains and reactivities at the terminal sites in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves

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only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 .

Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05**

I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The additional flexible polyols of applicants' claims do not serve to distinguish over the polyols of Hager et al. in that they are generally met by the polyols disclosed by Hager et al. and its desired arrangements and configurations disclosed. "Flexible" in defining the "polyol" of the claims does not serve to further define the "polyol" in the patentable sense. Additionally, "flexible polyol" and the "ethylene-oxide rich polyol" of applicants' claims can be met by the same polyol.

Claims 1, 4, 5, 7-18, 20-25, 28, 29, 31-41, 43-48, 51, 52, and 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter et al.(5,420,170).

Lutter et al. discloses preparations of polyurethane foams having densities as claimed prepared from isocyanates, polyols as defined by applicants' claims, chain extenders in amounts in overlap with those claimed, extenders reading on the crosslinkers as claimed, and other auxiliaries, regulators, and additives which are mixed

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and reacted at isocyanate indices as claimed (see column 8 line 50- column 11 line 36, as well as, the entire document).

Lutter et al. differs from applicants' claims in that chain extenders are not particularly employed in amounts as claimed. However, Lutter et al. recites variation of their chain extender in amounts in overlap with the ranges of amounts claimed by applicants for the purpose of controlling polymer build-up. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amounts of chain extender within the teachings of Lutter et al. for the purpose of controlling polymer build-up of the products obtained in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Claims 1, 4, 5, 7-18, 20-25, 28, 29, 31-41, 43-48, 51, 52, and 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys(5,968,993).

Bleys discloses preparations of polyurethane foams prepared from isocyanates, polyols as defined by applicants' claims, and chain extenders in amounts as claimed, crosslinkers, and other materials conventional to such reaction mixtures which are mixed and reacted at isocyanate indices as claimed (see example 3, as well as, the entire document).

Bleys differs from applicants' claims in that densities of the range of values as claimed are not particularly required. However, Bleys recites variation of the densities within their teaching through control of reactants and additive materials, such as amounts of blowing agent, and particularly discloses preferred densities of less than 600kg/m<sup>3</sup> for purposes of achieving their inventive concerns. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amounts of blowing agent material employed within the teachings of Bleys for the purpose of controlling densities of the products obtained in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773.

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(see also MPEP 2144.05 I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The following arguments previously set forth are maintained:

Applicants' arguments and affidavit have been considered but are unpersuasive. Applicants' have not provided a definitive and factually supported showing of new or unexpected results attributable to their compositions as claimed based on differences in their claims, and any showing would need to be commensurate in scope with the scope of the claims as they currently stand.

When considering showings of new or unexpected results, the following must be considered:

**Results Must be Unexpected:**

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

**Claims Must be Commensurate With Showings:**

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results associated with the differences in their claims which are commensurate in scope with the scope of their claims. Applicants have not demonstrated their results to be clearly and



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convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature.

Additionally, it is maintained that applicants' recitation of viscoelastic in the preamble of the claims does not serve to distinguish applicants' claims in a patentable sense.

Applicants' latest arguments have been considered. However, rejections are maintained for the reasons set forth above. Statements about results needing to compare to closest prior art have been removed from the arguments maintained above to avoid confusion and help clearly identify deficiencies of applicants' current comparative showings.

Applicants have not made a clear and convincing showing of new or unexpected results attributable to the invention claimed that is commensurate in scope with the scope of the claims as they currently stand. Comparisons based on a commensurate in scope showing of the range of chain extenders, isocyanate-reactive compound, and isocyanate compounds and their respective claim amounts must be made in order for applicants' comparative showing to be sufficient. Applicants' current showings of results, including the Declaration received 5-30-06, does not make such a commensurate in scope showing.

Although the current evidence of record is insufficient in enabling it to be fully determined if applicants' evidence of unexpected results is more significant than expected results attributable to the differences indicated in the rejections above. Examiner holds that it is appropriately indicated in examiner's arguments above that the evidence of record must clearly and convincingly establish that the evidence of new or

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unexpected results are more significant than of record is more significant than the evidence of expected results.

Finally, regarding the rejection over Bleys, applicants' current showings of unexpected results are not directed towards the differences identified in the rejection set forth above.

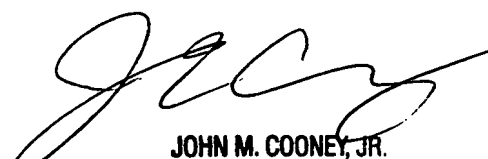
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
Group 1700